

sivity to a sucrose solution (1%), or cocaine (0, 5, 10, or 20 mg/kg) place conditioning (CPP).

**Results:** Here we show that adult mice pre-treated with ketamine during adolescence displayed enhanced preference for a sucrose solution, as well as environments previously paired with moderately low doses of cocaine, when compared to saline pre-treated controls.

**Conclusions:** Together, our findings suggest that exposure to ketamine during adolescence increases sensitivity to both natural and drug-rewards, later in life.

**Financial support:** NIGMS (SC2GM109811).

<http://dx.doi.org/10.1016/j.drugalcdep.2016.08.263>

### Rates and correlates of syphilis reinfection among men who have sex with men in San Francisco



Jennifer P. Jain<sup>1,\*</sup>, Glenn-Milo Santos<sup>2</sup>, Susan Scheer<sup>3</sup>, Steve Gibson<sup>4</sup>, Pierre-Cedric Crouch<sup>4</sup>, Robert Kohn<sup>3</sup>, Walter Chang<sup>1</sup>, Adam Carrico<sup>1</sup>

<sup>1</sup> CHS, UCSF, San Francisco, CA, United States

<sup>2</sup> Community Health Systems, University of California San Francisco, San Francisco, CA, United States

<sup>3</sup> SFPDPH, San Francisco, CA, United States

<sup>4</sup> SFAF, San Francisco, CA, United States

**Aims:** In 2013, the rate of reported primary and secondary syphilis in the United States was 5.3 cases per 100,000 persons, which is more than double the rate of 2.1 in 2000. This resurgence of syphilis infection has occurred primarily among MSM. Over 83% of all primary and secondary cases of syphilis in the United States are among MSM. However, relatively little is known about the rates and correlates of syphilis reinfection in this population.

**Methods:** From 2012 to 2013, 323 MSM received treatment for primary or secondary syphilis at a community-based clinic in San Francisco. Using clinical record data, we extracted demographic information, self-reported binge drinking in the past 30 days, and self-reported substance use in the past year. Our outcome was syphilis reinfection, defined primary or secondary syphilis infection reported to the San Francisco Department of Public Health following initial treatment. We evaluated correlates of reinfection using multivariable cox proportional hazards models.

**Results:** The mean time to syphilis reinfection was 24.8 (SD = 7.9) months such that one in five men (71/323; 22%) were reinfected over follow-up. The rate of syphilis reinfection was greater among HIV-positive men (adjusted Hazard Ratio [aHR] = 1.84; 95% CI = 1.08–3.12) and those who reported any ketamine use in the past year (aHR = 3.99; 95% CI = 1.64–9.71). Ketamine users ( $n = 15$ ) were significantly more likely to report using multiple substances in the past year (i.e., methamphetamine, cocaine, amyl nitrites, ecstasy, and gamma-hydroxybutyric acid [GHB]) compared to those who did not report ketamine use ( $n = 317$ ).

**Conclusions:** Syphilis reinfection rates were high among MSM in San Francisco. Syphilis prevention efforts targeting MSM should address the unique needs of those who are HIV-positive and target substance use as a potential driver of syphilis reinfection.

**Financial support:** UCSF, School of Nursing.

<http://dx.doi.org/10.1016/j.drugalcdep.2016.08.264>

### Employment-based reinforcement of naltrexone adherence in unemployed heroin users: Effects on opiate use



Brantley Jarvis\*, August Holtyn, Anthony DeFulio, Annie Umbricht, M. Fingerhood, George Bigelow, Kenneth Silverman

Johns Hopkins University School of Medicine, Baltimore, MD, United States

**Aims:** The aim of this study was to determine whether employment-based reinforcement of naltrexone adherence increased opiate abstinence.

**Methods:** In three previously-reported randomized clinical trials with unemployed heroin users, employment-based reinforcement increased adherence to oral and extended-release naltrexone. However, effects on opiate abstinence were not significant in those within-study analyses with small per-group N's ranging from 17 to 35. Here we analyze effects on opiate use with larger N's by combining data from all three studies. Recently detoxified, heroin-dependent unemployed adults participated in a therapeutic workplace for 26 weeks where they could earn wages and receive job skills training. Participants were randomized to a Prescription ( $n = 68$ ) or Contingency ( $n = 72$ ) group. Contingency group participants were required to adhere to naltrexone to gain access to the workplace. Prescription group participants could access the workplace independent of their naltrexone adherence. Naltrexone formulation and dosing varied across trials: 3×/week (oral), 1×/3 weeks (Depotrex injection), or 1×/4 weeks (Vivitrol injection). Adherence was measured as the percentage of doses directly observed to be accepted (injection studies) or by monthly urinalysis for naltrexone (oral study).

**Results:** Analyses showed that Contingency group participants had significantly higher rates of naltrexone adherence than Prescription group participants (78.0% vs. 35.0%) and significantly higher rates of thrice-weekly opiate-negative urine samples (missing-missing: 87.4% vs. 75.6%; missing-positive: 68.9% vs. 55.6%).

**Conclusions:** Employment-based contingencies for adherence to naltrexone are effective and can increase opiate abstinence among unemployed heroin-dependent adults.

**Financial support:** R01DA019386, R01DA019497, T32DA07209. Alkermes, Inc., supplied Vivitrol at no cost.

<http://dx.doi.org/10.1016/j.drugalcdep.2016.08.265>

### Smoking and trauma in Syrian refugees



Hussam Jefee-Bahloul<sup>1,2,\*</sup>, Mohammad Jaafar<sup>3</sup>

<sup>1</sup> Psychiatry – Division of Substance Use, University of Massachusetts Medical School, Boston, MA, United States

<sup>2</sup> Psychiatry, Yale School of Medicine, New Haven, CT, United States

<sup>3</sup> Union of Syrian Medical Relief Organizations, Reyhanli, Turkey

**Aims:** This study is aiming to characterize smoking patterns and trauma, and to identify interest for different smoking cessation interventions in a sample of Syrian refugee smokers in Turkey.

**Methods:** Syrian refugees recruited in this study were self-identified as smokers. A cross-sectional assessment was done using expired Carbon monoxide (eCO), Fagerstrom Nicotine Dependence (FTND), Harvard Trauma Questionnaire, in addition to question-